Trade and Industrial Education
Course: **Construction Core**
Course Code # 5730
1 Credit

School Year _____

Term:____Fall____Spring

Student:	**Grade:**
Teacher:	**School:**
Number of Competencies in Course: 60	
Number of Competencies Mastered:	
Percent of Competencies Mastered:	

STANDARD 1.0: Students will demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
1.1	Cultivate leadership skills.		
1.2	Participate in SkillsUSA-VICA or similar organization.		
1.3	Assess situations within the school, community, and workplace and apply values to develop and select solutions.		
1.4	Demonstrate the ability to work cooperatively with others.		

STANDARD 2.0: Students will identify and demonstrate basic principles of safety procedures used in the construction industry.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
2.1	Demonstrate a positive attitude regarding safety practices and issues.		
2.2	Use personal protective equipment.		
2.3	Demonstrate safe operating procedures with tools and equipment, such as hand and power tools, ladders, scaffolding, and lifting equipment.		
2.4	Follow safe procedures for lifting heavy objects.		
2.5	Explain the importance of the HazCom (Hazard Communication Standard) requirement and MSDSs (Material Safety Data Sheets).		
5.6	Adhere to responsibilities, regulations, and company policies regarding reporting of accidents.		
2.7	Practice fire prevention in dealing with various flammable materials.		
2.8	Demonstrate appropriate construction-related safety procedures.		
2.9	Pass with 100 % accuracy a written examination relating to safety issues.		
2.10	Pass with 100% accuracy a performance examination relating to safety.		
2.11	Maintain a portfolio record of written safety examinations and equipment examinations for which the student has passed an operational checkout by the instructor.		

STANDARD 3.0: Students will interpret drawings and written specifications and relate them to the construction layout.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
3.1	Interpret dimensions and locations of components that are explicitly dimensioned in construction drawings and written specifications.		
3.2	Scale dimensions that are not explicitly included in construction drawings.		
3.3	Interpret plan and elevation views shown in construction drawings.		
3.4	Recognize and interpret lines and symbols commonly used in construction drawings.		

STANDARD 4.0: Students will trace the growth and development of the construction industry.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
4.1	Analyze the evolution of the construction industry.		
4.2	Analyze current cultural and economic indicators to anticipate future trends in the construction industry.		
4.3	Explore economic aspects, the free enterprise system, and the role of government as they relate to the construction industry.		

STANDARD 5.0: Students will evaluate career opportunities and career paths within the construction industry.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
5.1	Examine various fields of work and related occupations within the construction industry.		
5.2	Explain the titles, roles, and functions of individuals engaged in construction careers, including opportunities for advancement.		
5.3	Investigate employment and entrepreneurial opportunities.		
5.4	Evaluate personal characteristics required for working in the construction industry.		
5.5	Investigate post-secondary education, professional organizations, and trade publications appropriate for continuing education.		

STANDARD 6.0: Students will identify, select, inspect, safely use, maintain, and store hand tools.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
6.1	Demonstrate the proper use of striking tools.		
6.2	Demonstrate the proper use of cutting tools.		
6.3	Demonstrate the proper use of torque producing tools.		
6.4	Demonstrate the proper use of leveling and squaring tools.		
6.5	Demonstrate the proper use of grinding and shaping tools.		
6.6	Demonstrate the proper use of clamping tools.		
6.7	Demonstrate the proper use of pulling and lifting tools.		

STANDARD 7.0: Students will identify, select, inspect, safely use, maintain, and store power tools.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
7.1	Demonstrate the proper use of striking tools.		
7.2	Demonstrate the proper use of cutting tools.		
7.3	Demonstrate the proper use of torque producing tools.		
7.4	Demonstrate the proper use of grinding and shaping tools.		
7.5	Demonstrate the proper use of clamping tools.		
7.6	Demonstrate the proper use of pulling and lifting tools.		

STANDARD 8.0: Students will make and lay out linear and angular measurements.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
8.1	Make accurate linear measurements.		
8.2	Make accurate angular measurements.		
8.3	Make accurate two-dimensional layouts specified with linear and angular dimensions.		
8.4	Make accurate three-dimensional layouts specified with linear and angular dimensions.		

STANDARD 9.0: Students will transfer mathematics concepts to solve problems encountered in the construction industry.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
9.1	Apply geometric and algebraic concepts to calculations of areas and volumes from construction drawings.		
9.2	Apply rate-of-change concepts to construction problems.		
9.3	Estimate error propagation in calculations due to uncertainty in measurements.		
9.4	Analyze the effect of interest rates on the cost of construction.		

STANDARD10.0: Students will rig and move materials and equipment.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
10.1	Inspect rigging equipment.		
10.2	Analyze crane hand signals.		
10.3	Estimate size, weight, and center of gravity.		
10.4	Demonstrate tying common knots used for rigging operations.		
10.5	Evaluate various wire rope slings used for rigging operations.		
10.6	Analyze various types of derricks.		
10.7	Analyze types of cranes.		

STANDARD 11.0: Students will demonstrate proficiency in creating two- and three-dimensional scale drawings.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
11.1	Create accurate and complete manual scale drawings of two-dimensional objects and two-dimensional plans.		
11.2	Apply drawing dimensioning rules using basic measurement systems.		
11.3	Create complete orthographic projections of simple three-dimensional objects.		
11.4	Create complete orthographic projections of complex three-dimensional objects.		
11.5	Analyze the use of a computer-aided drafting software program to draw two- and three-dimensional objects.		

Additional Comments _____